

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of controlling an electronic still camera having a solid state imaging device including a plurality of adjacent horizontal scanning lines of individual pixels intersected by a plurality of adjacent color filters, each of a distinct color, forming columns in the solid state imaging device so that individual pixels of

the plurality of adjacent horizontal scanning lines within a particular color filter detect a same color, an electronic view finder for displaying a moving picture of a photographic subject by interlace-scanning, and a recording device for recording a still picture of the photographic subject as digital data on a recording medium in response to a shutter release operation, comprising:

obtaining field image signals of an odd field by adding a signal charge stored in each of those pixels aligned in even horizontal scanning lines to a signal charge stored in one of those pixels detecting the same color in one of two adjacent odd horizontal scanning lines, each of those pixels in the even and adjacent odd scanning lines vertically aligned within the same color filter;

obtaining field image signals of an even field by adding the signal charge of each pixel of the even horizontal scanning lines to a signal charge stored in one of those pixels detecting the same color in the other of two adjacent odd horizontal scanning lines;

subjecting a white balance process to said field image signals consisting of separated red, blue and green signals in a white balance circuit, the white balance process adjusting the signal levels of a blue image signal and a red image signal to a signal level of a green image signal so that a ratio of blue to green and a ratio of red to green is maintained constant;

subjecting an output of the white balance circuit to a gradation correction in a γ -circuit;

outputting integrated values of said field images from said white balance circuit in an integrated circuit;

displaying a frame of the moving picture based on the field image signals for the odd and even fields which are outputted from said γ -circuit;

detecting signal levels of the field image signals based on said integrated values;

starting, in response to the shutter release operation, to read signal charges stored in the individual pixels by sequential scanning each horizontal scanning line, to provide image signals of one frame to record; and

determining signal levels of the image signals to record based on the signal levels of the field image signals.

2. (Original) A method according to claim 1, wherein the signal levels of the image signals to record are controlled by changing exposure value or gain of an amplifier connected to an output of the solid state device.

3. (Original) A method according to claim 2, wherein the solid state device is driven with a charge storage time for obtaining the image signals to record, the charge storage time being twice as long as a charge storage time that is used for the field image signals immediately before the shutter release operation.

4. (Original) A method according to claim 2, wherein the gain of the amplifier for each color is doubled for the image signals to record, compared with that used for the field image signals immediately before the shutter release operation.

5. (Currently Amended) A method of controlling an electronic still camera having a solid state imaging device including a plurality of adjacent horizontal scanning lines of individual pixels intersected by three vertically-adjacent color separation filters forming columns in the solid state imaging device so that individual pixels of the plurality of adjacent horizontal scanning lines within a particular color filter detect a same color, an electronic view finder for

displaying a moving picture of a photographic subject, and a recording device for recording a still picture of the photographic subject as digital data on a recording medium in response to a shutter release operation, comprising:

driving the solid state imaging device at a first interval corresponding to a predetermined field frequency of interlace-scanning used for displaying the moving picture;

determining a first charge storage time of the solid state imaging device in a range not more than the first interval;

obtaining field image signals of an odd field by adding a signal charge stored during the first charge storage time in each of those pixels aligned in even horizontal scanning lines to a signal charge stored in one of those pixels detecting the same color in one of two adjacent odd horizontal scanning lines, each of those pixels in the even and adjacent odd scanning lines vertically aligned within the same color separation filter;

obtaining field image signals of an even field by adding the signal charge of each pixel of the even horizontal scanning lines to a signal charge stored in one of those pixels detecting the same color in the other of two adjacent odd horizontal scanning lines;

subjecting a white balance process to said field image signals consisting of separated red, blue and green signals in a white balance circuit, the white balance process adjusting the signal levels of a blue image signal and a red image signal to a signal level of a green image signal so that a ratio of blue to green and a ratio of red to green is maintained constant;

subjecting an output of the white balance circuit to a gradation correction in a γ -circuit;

outputting integrated values of said field images from said white balance circuit in an integrated circuit;

displaying a frame of the moving picture based on the field image signals for the odd and even fields, which are outputted from said γ -circuit by interlace-scanning;

detecting signal levels of the field image signals based on said integrated values;

revising the first charge storage time in accordance with the detected signal levels;

determining, in response to the shutter release operation, a second charge storage time based on the first charge storage time;

obtaining image signals for one frame from signal charges stored during the second charge storage time in the individual pixels of the solid state imaging device by sequential scanning of each horizontal scanning line; and

recording the image signals of one frame as a still picture in the recording medium.

6. (Original) A method according to claim 5, wherein the second charge storage time is twice as long as the first charge storage time.

7. (Cancelled).

8. (Cancelled).

9. (Cancelled).

10. (Cancelled).